Amendments to the Claims:

Claim 1 (original): A method for determining the distance moved by a component while moving in a forward direction and operatively coupled to an analog encoder having analog first and second output signals in substantial quadrature comprising the steps of:

a) calculating an inverse signal which is the inverse of the second output signal;

b) calculating the distance moved by the component from a reference position using an ascending region of the first output signal until the first output signal reaches a first high level;

c) then calculating the distance moved by the component from the position of the component when the first output signal reached the first high level using an ascending region of the second output signal until the second output signal reaches a second high level;

d) then calculating the distance moved by the component from the position of the component when the second output signal reached the second high level using a descending region of the first output signal until the first output signal reaches a first low level; and

e) then calculating the distance moved by the component from the position of the component when the first output signal reached the first low level using a descending region of the second output signal until the second output signal reaches a second low level after which steps b) through e) are repeated wherein the reference position becomes the position of the component when the second output signal reached the second low level, and

wherein the first high level is the crossover level of the ascending first output signal and the inverse signal,

wherein the second high level is the crossover level of the ascending second output signal and the first output signal,

wherein the first low level is the crossover level of the descending first output signal and the inverse signal, and

wherein the second low level is the crossover level of the descending second output signal and the first output signal.

Claim 2 (original): The method of claim 1, wherein the crossover level corresponding to the first

high level is determined from at least one of the current value and the most recent previous value of the first output signal and the inverse signal when it has been determined that the ascending first output signal crossed the inverse signal.

Claim 3 (original): The method of claim 1, wherein the analog encoder has a rotatable encoder wheel, and wherein the first and second high and low levels for one revolution of the encoder wheel are previously measured and previously stored as a map in a memory.

Claim 4 (original): The method of claim 1, wherein the first and second high and low levels are updated for changes in crossover levels.

Claim 5 (original): The method of claim 1, wherein the analog encoder is a rotary analog encoder.

Claim 6 (original): The method of claim 1, wherein the analog encoder is a linear analog encoder.

Claim 7 (original): The method of claim 1, wherein the component is a printer paper-feed roller driven by a DC (direct current) motor.

Claim 8 (original): The method of claim 1, wherein the component is a printhead carrier of a printer.

Claim 9 (original): The method of claim 1, wherein the ascending regions and descending regions are substantially linear regions.

Claims 10-11 (canceled)

Claim 12 (currently amended): ~~The method of claim 10,~~ A method for determining the distance moved by a component operatively coupled to an analog encoder having analog first and second

output signals comprising the steps of:

a) calculating at least one of a first inverse signal which is the inverse of the first output signal and a second inverse signal which is the inverse of the second output signal; and

b) calculating the distance moved by the component from a previous position using one of an ascending or descending region of the first or second output signal, wherein the previous position is the position of the component corresponding to a crossover level of two signals chosen from the group consisting of the first output signal, the second output signal, and the at-least-one inverse signal, wherein the analog encoder has a rotatable encoder wheel, and wherein the crossover levels of the two signals for one revolution of the encoder wheel are previously measured and previously stored as a map in a memory.

Claim 13 (canceled)

Claim 14 (currently amended): ~~The method of claim 10,~~ A method for determining the distance moved by a component operatively coupled to an analog encoder having analog first and second output signals comprising the steps of:

a) calculating at least one of a first inverse signal which is the inverse of the first output signal and a second inverse signal which is the inverse of the second output signal; and

b) calculating the distance moved by the component from a previous position using one of an ascending or descending region of the first or second output signal, wherein the previous position is the position of the component corresponding to a crossover level of two signals chosen from the group consisting of the first output signal, the second output signal, and the at-least-one inverse signal, wherein the analog encoder is a rotary analog encoder.

Claim 15 (currently amended): ~~The method of claim 10,~~ A method for determining the distance moved by a component operatively coupled to an analog encoder having analog first and second output signals comprising the steps of:

a) calculating at least one of a first inverse signal which is the inverse of the first output signal and a second inverse signal which is the inverse of the second output signal; and

b) calculating the distance moved by the component from a previous position using one

of an ascending or descending region of the first or second output signal, wherein the previous position is the position of the component corresponding to a crossover level of two signals chosen from the group consisting of the first output signal, the second output signal, and the at-least-one inverse signal, wherein the analog encoder is a linear analog encoder.

Claims 16-20 (canceled)